

**REMARKS:**

In the foregoing amendments, Applicants amend the Specification to identify the parent and related applications. This amendment only concerns formal or editorial matters. Accordingly, Applicants respectfully request that the amendment to the Specification be entered under the provisions of 37 C.F.R. § 1.116(b) for the purposes of placing the application in condition for allowance or for the purposes of appeal.

Claims 1-3 are pending. The Applicants respectfully request reconsideration and allowance of this application in view of the following remarks.

The Final Rejection withdrew the previous rejection of claims 1-3 under 35 U.S.C. §103(a) as being unpatentable over Xie (US 6,503,620 B1) in view of Eevers (US 2001/055928 A1). Unfortunately, the Final rejection included a new rejection of claims 1-3 under 35 U.S.C. §103(a) as being unpatentable over Xie in view of Furukawa (US 2001/0053648 A1). This rejection is respectfully traversed for the reasons discussed below.

The teachings of Xie were discussed and distinguished from the presently claim invention in the Response filed on October 2, 2009, which remarks are incorporated herein by reference. On page 2 of the previous Office Action, the Examiner admitted that the teachings of Xie do not disclose the hole diameter and

hole density parameters recited in the present claims. The Final Rejection cited Furukawa as teaching a pressure-sensitive adhesive having small apertures as presently claimed. The Final Rejection concluded that it would have been obvious to one of ordinary skill in the art to form the apertures of Furukawa in the pressure sensitive sheet of Xie, so as to arrive at the presently claimed invention.

The Final Rejection pointed out that that the apertures of Furukawa would not mechanically weaken (change the storage modulus) of the non-apertured pressure sensitive adhesive layer of Xie. However, this position is incorrect and the combination of Xie and Furukawa cannot lead one of ordinary skill in the art to the presently claimed invention within in the meaning of 35 U.S.C. §103(a)

In particular, one of ordinary skill in the art would understand that including a multitude of through-holes (e.g., apertures) as required by Furukawa necessarily weakens the pressure sensitive adhesive layer to which the through-holes are added. Assuming *arguendo* that the storage modulus does not change by forming through-holes in the pressure sensitive adhesive layer, the mechanical strength necessarily changes. When excessive through-holes are formed on a film, the film easily splits off from the through-holes as a starting point. Those skilled in the art call this the “notch effect.” Combining Xie with Furukawa as proposed in the Final Rejection will result in the occurrence of the notch effect in the pressure sensitive adhesive

layer of Xie, thereby significantly diminishing its mechanical strength to something outside Applicants' presently claimed range.

Please consider Examples 1 and 2 of Furukawa, where the distance (L2) between the apertures is 300  $\mu\text{m}$ , which equals 0.03 cm (¶¶ 0863, 0866). Based on this distance, the hole density becomes 111,111 per 100  $\text{cm}^2$ , which is calculated by the formula  $(10 \text{ cm} / 0.03 \text{ cm})^2$ . This result significantly exceeds the upper limit for the presently claimed invention of 50,000 (Claims 1 and 2, Spec. p. 11, ll. 16-22). The mechanical strength of pressure-sensitive adhesive sheet having a hole density of 111,111 per 100  $\text{cm}^2$  is very low (Spec. p. 11, ll. 16-22), so it cannot be used as a pressure sensitive sheet and cannot encompass or suggest the pressure sensitive adhesive sheet as required in the present claims. This is especially the situation with respect to the limitation of the loss tangent of not more than 0.78 at 120°C that is required in claim 2.

At least for these reasons, Applicants respectfully submit that the combined teachings of Xie and Furukawa cannot disclose or suggest a pressure-sensitive adhesive sheet that includes a base material and a pressure-sensitive adhesive layer formed with a plurality of density-specific holes passing through the surfaces with values for maximum temperature (claim 1 only), hole diameter, hole density,

storage modulus and loss tangent as required in the present claims and as set forth in the following table.

Claims 1 and 2	
Parameter	Value
Maximum Temperature of exposure after having been stuck onto an adherend - <b>Claim 1 Only</b>	$T_{\max}$ (wherein $20^{\circ}\text{C} \leq T_{\max} \leq 130^{\circ}\text{C}$ ) <b>Claim 1 Only</b>
Hole diameter in base material and pressure sensitive adhesive layer	0.1 to 150 $\mu\text{m}$ (as amended)
Hole density of through-holes	30 to 50,000 per 100 $\text{cm}^2$
Storage modulus at $T_{\max}$	not less than $4.5 \times 10^3$ Pa
Loss tangent at $T_{\max}$	not more than 0.78

Based on the foregoing remarks, one skilled in the art would have no reason to combine the teachings of Xie and Furukawa and/or any combination of Xie and Furukawa cannot result in Applicants' claimed invention. Accordingly, Applicants' claims 1-3 cannot be obvious in view of any combination of the cited references and this rejection should be withdrawn.

In view of the foregoing, Applicants submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions arise, the Examiner is invited to contact the undersigned by telephone.

If there are any problems with the payment of fees, please charge any underpayments and credit any overpayments to Deposit Account No. 50-1147.

Respectfully submitted,

/R. EUGENE VARNDELL, JR./

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R. Eugene Varndell, Jr.  
Reg. No. 29, 728

Posz Law Group, PLC  
12040 South Lakes Drive, Suite 101  
Reston, VA 20191  
Phone 703-707-9110  
Fax 703-707-9112  
Customer No. 23400